

**REMARKS**

Claims 1-25 stand in this application. Claims 1, 3-5, 10, 12, 13, 16, 19, 21, and 24 have been amended. No new matter has been added. Favorable reconsideration and allowance of the standing claims are respectfully requested

At page 2, paragraph 1 of the Office Action claim 1 was objected to for various informalities. Applicants have amended claim 1 to address the informalities, and respectfully submit that claim 1 is in condition for allowance.

At page 2, paragraph 3 of the Office Action claims 12, 13, and 15 have been rejected under 35 U.S.C. § 112, second paragraph, for not particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention. Applicants respectfully traverse the rejection based on the above amendments. Claims 12 and 13 have been amended in accordance with the Office Action, and removal of this rejection is respectfully requested. Claim 10 has been amended in accordance with the Office Action to address the rejection with respect to claim 15 and removal of this rejection also is respectfully requested. Applicants further submit that the above amendments are made to overcome a § 112 rejection and are not made to overcome the cited reference[s]. Accordingly, these amendments should not be construed in a limiting manner.

At page 3, paragraph 6 of the Office Action claims 1, 3-9, 19, and 20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent Number (USPN) 6,388,990 to Wetzel ("Wetzel"). Applicants respectfully traverse the rejection, and request reconsideration and withdrawal of the anticipation rejection.

Applicants respectfully submit that to anticipate a claim under 35 U.S.C. § 102(e), the cited reference must teach every element of the claim. *See* MPEP § 2131, for example. Applicants submit that the Wetzel reference fails to teach each and every element recited in claims 1, 3-9, 19, and 20 and thus they define over Wetzel. For example, with respect to claims 1, 3, and 7, Wetzel fails to teach, among other things, the following language:

establishing a DSL connection . . . with a dynamic transmission rate negotiated at initialization time based on characteristics of a transmission environment during the initialization time . . . and . . . re-initializing said DSL connection based on varying characteristics of the transmission environment.

Further, with respect to claim 5, Wetzel fails to teach, among other things, the following language:

establishing a DSL connection . . . with a dynamic transmission rate negotiated at initialization time based on characteristics of a transmission environment during the initialization time . . . and . . . re-establishing said DSL connection . . . based on varying characteristics of the transmission environment.

Moreover, with respect to claim 19, Wetzel fails to teach, among other things, the following language:

said DSL connection being established using an initial transmission rate negotiated based on transmission environment detected during line probing . . . [and] generating new statistics based on said connection statistics to characterize current varying transmission environment on said DSL connection. . . .

According to the Office Action, Wetzel discloses at Fig. 2, training to obtain speeds from 300 to a trained rate of 600 Mbps. The training, however, is performed only at initialization and is not adaptively optimized based on varying characteristics of the transmission environment. Rather, the Network Operations Center (NOC) merely monitors whether the DSL Access Multiplexer has been interrupted or reset causing the need for retraining. (See Wetzel at col. 11, lines 37-43, for example.) In contrast, the claimed subject matter monitors the varying transmission environment as it varies from the transmission environment at initialization time and determines whether to re-initialize the DSL connection based on the variation of the transmission environment. Consequently, Wetzel fails to disclose all the elements or features of the claimed subject matter. Accordingly, Applicants respectfully request removal of the anticipation rejection with respect to claims 1, 3, 5, 7, and 19. Furthermore, Applicants respectfully request withdrawal of the anticipation rejection with respect to claims 4, 6, 8, and 20 which depend from claim 3, 6, 7, and 19, respectively, and contain additional features that further distinguish these claims from Wetzel.

At page 7, paragraph 8 of the Office Action claims 2, 10-13, 15-17, 21, 22, 24, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Wetzel in view of USPN 6,351,487 to Lu et al. ("Lu"). Applicants respectfully traverse the rejection, and request reconsideration and withdrawal of the obviousness rejection.

The Office Action has failed to meet its burden of establishing a *prima facie* case of obviousness. According to MPEP § 2143, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art, to modify the reference or to combine reference teachings.

Second, there must be a reasonable expectation of success. Finally, the reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

As recited above, to form a *prima facie* case of obviousness under 35 U.S.C § 103(a) the cited references, when combined, must teach or suggest every element of the claim. See MPEP § 2143.03, for example. Applicant respectfully submits that the Office Action has not established a *prima facie* case of obviousness because the cited references, taken alone or in combination, fail to teach or suggest every element recited in claims 2, 10-13, 15-17, 21, 22, 24, and 25. Therefore, these claims define over Wetzel and Lu whether taken alone or in combination.

Wetzel fails to disclose all of the elements recited in amended claim 1. The combination of Wetzel with Lu fails to overcome the shortcomings of Wetzel. For example, Applicants submit that Lu also fails to disclose, teach or suggest the following language:

establishing a DSL connection . . . with a dynamic transmission rate negotiated at initialization time based on characteristics of a transmission environment during the initialization time . . . and . . . re-initializing said DSL connection based on varying characteristics of the transmission environment.

Lu merely discloses that connection statistics are stored in both customer premise equipment and the DSL access multiplexer. By way of contrast, the claimed subject

matter states to monitor the varying transmission environment as it varies from the transmission environment at initialization time and determines whether to re-initialize the DSL connection based on the variation of the transmission environment. Applicants submit that Lu fails to disclose, teach or suggest the missing language. Consequently, Wetzel and Lu, whether taken alone or in combination, fail to disclose, teach or suggest every element recited in claim 1. Therefore, Applicants submit that claim 1 is not obvious in view of Wetzel and Lu, taken alone or in combination. If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. *See* MPEP § 2143.03, for example. Accordingly, because claim 2 depends from claim 1, Applicants respectfully request removal of the obviousness rejection with respect to claim 2.

With respect to claim 10, Lu fails to disclose, teach or suggest, among other things, that the “statistical information reflects varying characteristics of the transmission environment,” as recited in claim 10. Nowhere does Lu disclose, teach or suggest storing statistical information that reflects the varying characteristics of the transmission environment. Rather, Lu merely discloses that the status register may include a ringing/dialing bit, an acknowledgment bit, a ring-back bit, status bits, and a connection bit. (*See* Lu at col. 7, lines 44-46, for example.) Further, Lu discloses that the status register may receive a command to trigger an interrupt to the modem. (*See* Lu at col. 8, lines 12-14, for example.) However, none of this information reflects the varying characteristics of the transmission environment, as recited in claim 10. Therefore, Applicants respectfully submit that claim 10 is not obvious and patentable over Wetzel in

view of Lu, because the references taken alone or in combination, fail to disclose, teach or suggest all the elements recited in claim 10.

Claims 11, 12, 13, and 15 also are not obvious and patentable over Wetzel in view of Lu, taken alone or in combination, at least on the basis of their dependency from claim 10. Applicants, therefore, respectfully request the removal of the obviousness rejection with respect to these dependent claims.

Claims 16, 17, 21, and 22 contain similar features to those recited in claim 10. Therefore, for analogous reasons as those presented with respect to claim 10, Applicants respectfully submit that claims 16, 17, 21, and 22 also are not obvious and patentable over Wetzel in view of Lu, taken alone or in combination.

Claims 24 and 25 contain similar features to those discussed above with respect to claims 19 and 20. Therefore, for analogous reasons as those presented with respect to claims 19 and 20, Applicants respectfully submit that claims 19 and 20 also are not obvious and patentable over Wetzel in view of Lu, taken alone or in combination.

For at least the reasons given above, claims 2, 10-13, 15-17, 21, 22, 24, and 25 are not obvious and represent patentable subject matter in view of the cited references, whether taken alone or in combination. Accordingly, removal of the obviousness rejection with respect to these claims is respectfully requested.

For at least the above reasons, Applicants submit that claims 1-13, 15-17, 19-22, 24, and 25 recite novel features not shown by the cited references, taken alone or in combination. Further, Applicants submit that the above-recited novel features provide new and unexpected results not recognized by the cited references. Accordingly,

Applicants submit that the claims are not anticipated nor rendered obvious in view of the cited references.

At page 11, paragraph 9 of the Office Action claims 14, 18, and 23 were objected to for being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. Applicants would like to thank the Examiner for indicating the allowability of claims 14, 18, and 23 if amended to include all of the limitations of the base claims and any intervening claims. These claims, however, depend from an independent claim as previously discussed. Therefore, it is respectfully submitted that these claims represent patentable subject matter in their current form for at least the same reasons given for the independent claim.

Applicants do not otherwise concede, however, the correctness of the Office Action's rejection with respect to any of the dependent claims discussed above. Accordingly, Applicants hereby reserve the right to make additional arguments as may be necessary to further distinguish the dependent claims from the cited references, taken alone or in combination, based on additional features contained in the dependent claims that were not discussed above. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims pointed out above.

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Reply to Office Action of October 15, 2004

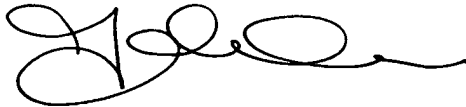
It is believed that claims 1-25 are in allowable form. Accordingly, a timely Notice of Allowance to this effect is earnestly solicited.

The Examiner is invited to contact the undersigned at 724-933-3387 to discuss any matter concerning this application.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 02-2666.

Respectfully submitted,


BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP



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Under 37 CFR 1.34(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to:  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on: January 18, 2005.

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Deborah L. Higham Date

Dated: January 18, 2005

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